TECHNICAL DATA SHEET

LINE-X® XS-650

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PRODUCT MANUFACTURER

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GENERAL PRODUCT DESCRIPTION

LINE-X XS-650 is a two-component, high performance aliphatic polyurea spray elastomer system, zero VOCs (Volatile Organic Compounds), 100% solids. LINE-X XS-650 offers outstanding UV (ultraviolet) protection was well superior elastomeric properties.

LINE-X XS-650 is designed as a user-friendly product and offers exceptional adhesion properties for properly prepared substrates. The high-performance formulation of LINE-X XS-650 produces an excellent skin formation for chemical resistance and moisture protection.

APPLICATION GUIDELINES

Both the Iso "A" Side and Resin "B" Side should be preconditioned between 70°F to 90°F (21°C to 32°C) before application. LINE-X XS-650 must be applied using high-pressure, plural component, heated, 1:1 by volume, spray equipment with a minimum of 2,000 psi fluid pressure capability.

LINE-X XS-650 material (both Iso "A" Side and Resin "B" Side) should be heated up to 150°F (66°C). Spray equipment must generate adequate fluid pressure for proper mixing and best polymerization results.

APPLICATION EQUIPMENT

LINE-X XS-650 is designed to be sprayed through high-pressure impingement mixing equipment. Plural component spray equipment must have material heat-control capability, 1:1 by volume, and sprayable with round offset mix chamber AR3729. Refer to equipment manufacturer for equipment specifics and accessories.

EQUIPMENT SETTING PARAMETERS

Iso "A" and Polyol "B" components must be pumped by low-pressure transfer pumps to high-pressure proportional pumping equipment.

TEMPERATURE SETTINGS

EQUIPMENT	TEMPATURE RANGE
Iso "A" Block Heater	150 - 160°F
Resin "B" Block Heater	150 - 160°F
Hoses (Iso and Polyol)	150 - 160°F

PRESSURE SETTING

EQUIPMENT	PRESSURE RANGE
Equipment Pressure	2,000 - 2,300 psi

EQUIPMENT CLEAN UP

Spray equipment should be cleaned immediately after use following equipment manufacturer's recommended procedures. Please refer to spray equipment operating and maintenance procedures for further details. LINE-X XS-650 should be cleaned with environmentally safe urethane-grade cleaners. Cleaning materials must be free of reactive contaminants such as water and alcohol. All gun cleaners and spray equipment cleaning materials must be used and disposed of as permitted under local rules and regulations.

MATERIAL STORAGE

LINE-X XS-650 has a shelf life of twelve (12) months from manufacture date in factory sealed containers. The material should be stored between 60°F to 100°F (16°C to 38°C). Do not expose unused materials to high humidity conditions. Always provide airtight reseal conditions to unused materials. For materials that are currently connecting to the pumps, always provide as much airtight and moisture-free conditions to unused materials as possible to ensure proper chemical performance. Drums should be stored on pallets to avoid direct contact with the warehouse floor/ground.

SAFETY AND HANDLING

Please refer to Safety Data Sheets (SDS) for safety and handling of this material. All personnel working with this material are expected to read and understand all safety recommendations per SDS. All Personal Protection Equipment must be properly worn to comply with worker health and safety requirements.

CHEMICAL TECHNICAL DATA

Conditions: 77°F and 50% Rel. Humidity	
Mix Ratio by Volume	1A:1B
Gel Time	12 to 14 seconds
Tack Free Time	30 to 45 seconds
Density “A” Side (lbs/gal)	9.26
Density “B” Side (lbs/gal)	7.59
Viscosity “A” Side (cP)	350
Viscosity “B” Side (cP)	85

BASIC PHYSICAL PROPERTIES

TEST NAME	TEST METHOD	VALUE
Elongation (%)	ASTM D412	115
Hardness Shore D	ASTM D2240	60 ± 2
Taber Abrasion (mg loss/1000 cycles)	ASTM D4060	29
Tear Strength (pli)	ASTM D624	745
Tensile Strength (psi)	ASTM D412	2517
QUV Exposure (@ 14,000 hours)	ASTM G154	Delta E 0.5

APPROVALS AND CERTIFICATES

Complies with FDA and USDA Coating Regulations for Incidental Food Contact Applications (Keller and Heckman LLP Letter of Opinion)

LINE-X XS-650 is recognized under the Component Recognition Program of Underwriters Laboratories (UL) for the UL 1332 Standard for Organic Coatings for Steel Enclosures for Outdoor Use Electrical Equipment (DTOV2). Representative samples of this component have been evaluated by UL and meet applicable UL requirements.

CHEMICAL RESISTANCE PROPERTIES

XS-650 materials were immersed in the chemicals listed and tested for chemical resistance per ASTM D543 for immersion in fluids methods.

CHEMICAL NAME	VOLUME CHANGE (%)	HARDNESS CHANGE (%)	TENSILE STRENGTH CHANGE (%)
Ammonium Chloride 30%	-1	3	-19%
Automotive Oil	0	4	6%
Bleach (Chloride) 6%	-1	8	-14%
Diesel Fuel	1	2	6%
Hydraulic Fluid (Oil)	-1	3	-22%
Hydrogen Peroxide 10%	-1	10	-11%
Kerosene	1	3	4%
Mineral Spirits	2	6	1%
Phosphoric Acid 50%	1	3	-9%
Potassium Hydroxide 50%	-1	-3	-3%
Sodium Chloride 30%	-1	4	-7%
Sodium Hydroxide 50%	-1	-7	19%
Transmission Fluid	-1	1	3%

LIMITATIONS

The chemical resistance chart should be consulted prior to application. Application-specific processing parameters such as temperature and operating pressure of coated objects must be considered before installing LINE-X XS-650 coating system.

PRODUCT USER RESPONSIBLITIES

Users of LINE-X XS-650 product are responsible for reading the general guidelines, product data sheets, specifications and safety data sheets (SDS) before using this material. Printed technical data and instructions are subject to change without notice. Contact your local LINE-X representative or visit our website www.LINE-X.com for current technical data instructions.

PRODUCT DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones that may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and LINE-X makes no claim that these tests or any other tests accurately represent all environments.